

**(19) World Intellectual Property Organization International Bureau**



**(43) International Publication Date**  
31 March 2005 (31.03.2005)

**PCT**

**(10) International Publication Number**  
**WO 2005/029048 A1**

**(51) International Patent Classification<sup>7</sup>:** **G01N 21/03, 21/35, 21/31**

**(21) International Application Number:**  
**PCT/NL2004/000652**

**(22) International Filing Date:**  
20 September 2004 (20.09.2004)

**(25) Filing Language:**  
Dutch

**(26) Publication Language:**  
English

**(30) Priority Data:**  
1024364 24 September 2003 (24.09.2003) NL

**(71) Applicant (for all designated States except US):** **BERLI B.V. [NL/NL]; De Flament 1014, NL-5854 NA Nieuw-Bergen (NL).**

**(72) Inventor; and**

**(75) Inventor/Applicant (for US only):** **BOEKELMAN, Willem, Antonius [NL/NL]; Mgr. Boermansstraat 3, NL-5911 BA Venlo (NL).**

**(74) Agents:** **DORNA, Peter, Ir. et al.; Algemeen Octrooien Merkenbureau, P.O. Box 645, NL-5600 AP Eindhoven (NL).**

**(81) Designated States (unless otherwise indicated, for every kind of national protection available):** AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

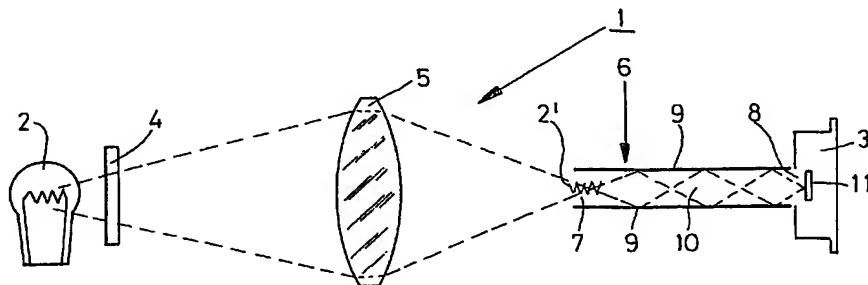
**(84) Designated States (unless otherwise indicated, for every kind of regional protection available):** ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

**Published:**

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

**(54) Title:** GAS SENSOR



**(57) Abstract:** A gas sensor comprising at least two light source, projection optics and a light-reflecting chamber provided with at least one light entry opening. The gas sensor further comprises a detector that cooperates with the light-reflecting chamber, by means of which detector light from the light source can be detected. The at least two light sources, which can each be projected on a light entry opening of the chamber by means of said projection optics.